

## AMENDMENTS TO THE SPECIFICATION

Paragraph beginning on page 8, line 14,

A sample stage 20 rotatable about an axis 21 for mounting a sample 22 is provided. The axis of rotation of the stage is arranged so that the axis passes through the front face 23 of the sample facing the X-ray source. An analyser crystal 30 is arranged together with a detector ~~32~~34. The analyser crystal and detector are both arranged on a detection stage 36 which is mounted to rotate the analyser and detector about an axis that is co-axial with the axis of rotation of the sample stage. The analyser crystal is a high-quality crystal with known diffraction properties that produces little background scattering.

Paragraph beginning on page 8, line 23,

The sample stage and detector stage are independently rotatable. In use, a sample 22 is mounted on the sample stage 20. X-rays 12 are collimated by the double pinhole collimator and illuminate a small spot 38 on the sample 22. Scattered X-rays 26 are not collected. Diffracted X-rays 28 are incident on the analyser crystal 30 and diffracted by the analyser crystal 30 onto the detector 34. The detection stage 36 and the sample stage 20 are rotated and the intensity of X-rays reaching the detector is measured as a function of rotation angle.

Paragraph beginning on page 8, line 31 and commencing on page 9, line 1,

The diffractometer according to the invention may be set up as follows. The

detector stage 36 is arranged so that X-rays passing through 24 the collimator impact the analyser crystal. The analyser crystal 30 is approximately rotated to reflect the direct beam into the detector. A scan rotating the detector stage 36 about its axis 21 is then performed to locate the position of maximum intensity, i.e. the zero point of no scattering.